CALIFORNIA RESOURCES AGENCY
COASTAL IMPACT ASSISTANCE PROGRAM
PROJECT PROPOSAL FORM

Department:	**California Coastal Commission and the California Department of Fish and Game**
Prepared by:	**Becky Christensen, Reserve Manager**
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Title of proposed project:	**Coordinating Stewardship of Elkhorn Slough: Development of a Tidal Wetland Action Plan**
Project location:	**Elkhorn Slough, Monterey County**
Total cost:	**$360,000**
Funding request:	**$300,000**

MISSION

To ensure comprehensive and coordinated management, conservation and enhancement of California's ocean and coastal resources for their intrinsic value and for the benefit of current and future generations.

GOALS: Four goals have been established by the State of California to achieve this mission.

Goal 1: Stewardship. To assess, conserve, and manage California's ocean and coastal resources and the ecosystem that supports those resources.

Goal 2: Economic Sustainability. To encourage environmentally sound, sustainable, and economically beneficial ocean and coastal resource development activities.

Goal 3: Research, Education and Technology. To advance research, educational programs, and technology developments to meet future needs and uses of coastal and ocean resources.

Goal 4: Jurisdiction and Ownership. To maximize California's interests in coastal watersheds, State Tidelands, the Territorial Sea, and the Exclusive Economic Zone.

Project Summary:

Synopsis

The purpose of this project is to develop a science-based action plan for a major resource management issue at Elkhorn Slough: the hydrological management of tidal wetlands. This critical issue will be thoroughly researched and synthesized so the ecological implications of all possible actions can be well understood. We will bring together all the key stakeholders and decision-makers for the tidal wetlands of Elkhorn Slough and surrounding waters in order to jointly reach consensus about the best management practices for each issue. Moreover, we will work together to build a shared vision of general management goals for Slough habitats and biological communities. The coordinated stewardship approach that will be developed and tested during this three-year period will then be in place for addressing other estuary-wide, multi-jurisdictional resource issues in the future. This project will exemplify integrated coastal management in its collaborative effort between the National Estuarine Research Reserve, the National Marine Sanctuary, and the California Coastal Commission, among others.

Background

Elkhorn Slough is a seven-mile-long seasonal estuary located in the center of Monterey Bay's coastline. It is a biologically rich wetland, providing habitat for a wide variety of birds, fishes, invertebrates, and marine mammals. Endangered Southern Sea Otters and California Brown Pelicans are common in Elkhorn Slough. The Slough serves as an important nursery ground for many aquatic species, and provides diverse recreational, educational, and research opportunities for human visitors.

Management and stewardship of the Slough is shared by many agencies, organizations, businesses, and private landowners. A preliminary count includes twenty five entities who have either formal jurisdiction or a strong interest in the Slough. The Elkhorn Slough National Estuarine Research Reserve (ESNERR) comprises a 1400-acre section of marsh and upland, owned and managed by the California Department of Fish and Game. The tidal waters of the Slough are within the boundaries of the Monterey Bay National Marine Sanctuary (MBNMS). This is the only place in the country where a National Estuarine Research Reserve and a National Marine Sanctuary share a boundary. In addition to these agencies, many others, including the California Coastal Commission and the Moss Landing Harbor District play a role in the management of the Slough. The Elkhorn Slough Foundation, a private non-profit organization has been involved in Slough research, education, and stewardship activities for over 20 years.

Resource issues affecting Elkhorn Slough are large-scale and complicated. Elkhorn Slough, while providing extremely valuable habitat, has also been intensely impacted by humans for well over a century. Opening the mouth of the Slough in 1946 to create the Moss Landing Harbor has resulted in serious tidal scour and significant loss of vegetated salt marsh in the area. The Union Pacific Railroad, often carrying hazardous materials, travels through the middle of the Slough on a daily basis. The Moss Landing Power Plant, one of the largest electricity-generating plants in California, is located at the entrance to Elkhorn Slough. Highly erodable, adjacent sloped lands are intensively cultivated resulting in large chemical and nutrient inputs into the Slough. Marine invasive species have been transported to Elkhorn Slough via ships, oysters, and currents. Old dikes and levees from past gun clubs and dairies

exist in various stages of erosion. Increasing numbers of kayakers paddle Slough waters each year bringing both their concern for this fragile environment and also their unintentional impacts to its wildlife. These and many other potential human influences comprise the conservation and management issues for this estuary.

Statement of the Problem:

There are two major challenges with the way the Elkhorn Slough is currently managed:

Fragmented management. Currently, unless legal permits are required, each landowner or authority acts independently from the others. While coordination occurs between some entities, like the ESNERR and the MBNMS, it does not formally include all other entities, and it has not thus far resulted in solving major Elkhorn Slough resource problems. No single entity is responsible for managing the whole Slough, and there is not a shared vision of management goals among the various existing interested parties. The result is a "the tragedy of the commons" where the big problems are never thoroughly addressed. Another significant roadblock to management is that no one entity has staff available to dedicate to Slough-wide issues because their current employees are fully booked with site-specific duties.

Inadequate knowledge about key resource issues. The resource issues are complicated and the solutions are not obvious. We know too little about the nature of different potential threats to prioritize between them. Furthermore, the science and expertise required to solve these problems is not readily available to local resource managers. Indeed, the research necessary to determine best mechanisms for addressing the threats has yet to be conducted for some key problems. Existing management plans are either outdated or they do not address resource issues with enough detail to yield a quality management decision. Low confidence in the ability to make wise decisions too often means no action is taken.

Proposed Project: General Approach and Goals:

We propose a three-year project that will develop a process for responsible and effective stewardship of Elkhorn Slough. Our general approach includes two main components, each designed to address one of the key challenges to management described above. The administrative implementation of this project will include a cooperative effort between the California Coastal Commission, the California Department of Fish and Game, and the Elkhorn Slough Foundation. Project oversight will be the responsibility of the Elkhorn Slough National Estuarine Research Reserve.

Coordinated stewardship. We will identify and bring together stakeholders with jurisdictions, authority, or interest in Elkhorn Slough and adjacent waters and lands. Key agencies and organizations in this process will include the California Department of Fish and Game, the California Coastal Commission, the California Coastal Conservancy, the Monterey Bay National Marine Sanctuary, and the Elkhorn Slough Foundation. The first critical step that has never been attempted will be to reach a shared vision for Slough habitats and biological communities. We will seek consensus to set over-arching estuary-wide conservation priorities

and management goals. Criteria such as historical baselines, needs of threatened and endangered species, preservation of rare habitat types, support of rich biological communities, and feasibility given human modifications will be evaluated in setting these goals. We will determine what mix of habitats participants believe would be ideal, and what communities and species should be conservation priorities, and in which places. Whenever possible, we will draw upon existing regional plans. However, this initial process will surely require additional field research to assess habitat value, literature reviews to synthesize estuarine patterns coast-wide, and consultation with specialists on the habitat needs of particular species or groups of concern. Once a shared vision has been developed, we will jointly build understanding of key threats to Slough resources and reach decisions about how best to address them. Involving all stakeholders will give them ownership of resulting decisions and make implementation likely.

To build this process of joint decision-making, we have requested a full-time coordinator position for three years (see budget). This position would operate under the direction of the Elkhorn Slough National Estuarine Research Reserve manager. Our success depends on the dedicated work of a coordinator with a broad scientific background, deft political skills, and intimate knowledge of regional issues to oversee and facilitate this process.

Research on key threats to Slough resources and the best ways of diminishing them. Working under the supervision of the coordinator, a resource fellow (see budget) will investigate key Slough management issues. He or she will examine the impacts of potential threats on Slough habitats and communities, synthesizing existing studies from the Slough and other similar estuarine systems and carrying out additional research as necessary. The MBNMS's Sanctuary Integrated Monitoring Network (SIMON), a collaborative regional monitoring effort, will be focusing on Slough monitoring related to the Duke Energy Moss Landing Power Plant upgrade over the next five years. Results from this work will also be incorporated into the syntheses carried out by the fellows. The fellows will then determine whether any management intervention is necessary to meet conservation goals for the Slough. If so, they will evaluate the effectiveness and consequences of a variety of management options, based on firsthand research, synthesis of existing literature, and consultation with experts. The fellow will also assess which agencies or organizations are best suited to implementing different management approaches, and what sort of regulation might be appropriate. This background research on threats and possible solutions will serve as the basis for coordinated workshops with all stakeholders to determine the best course of action. Based on the outcome of these workshops, the coordinator and fellow will prepare a draft action plan. After feedback, editing, and approval from the coordinated group, final versions of the action plan will be distributed, ready for immediate implementation.

An Estuary-wide Action Plan
The concrete product of this project will be an action plan with detailed "marching orders" for resource problem-solving in Elkhorn Slough.

Hydrological management of tidal wetlands. Some of the most urgent yet complex management issues at the Slough revolve around tidal flow. Like many estuaries, the Slough has been extensively diked. Wetland habitat can thus be created returning tidal flow to previously diked areas. However, unlike most estuaries, the Slough is an erosional system due to the artificially created harbor mouth, and strong tidal flushing has resulted in extensive

loss of marsh and mudflat and widening of tidal creeks. Therefore, in this unusual system, key habitats can perhaps best be protected in the long run by maintaining existing tidegates and levees, and perhaps even by adding new ones.

A three-year resource fellow will thoroughly examine these issues. In particular, the fellow will establish historical baselines and document changes in wetland habitats over time. The role of tidal scour will be thoroughly investigated. In consultation with hydrologists, projections will be made as to the likely consequences to Slough habitats if tidal erosion continues unchecked. Will the Slough transform into a muddy fiord with no intertidal mudflats or marsh? Or will erosion rates decelerate and an equilibrium not very different than current conditions be reached? These questions must be resolved before resource management decisions can be made.

Once the nature of tidal flow problems has been characterized, potential hydrodynamic engineering solutions will be evaluated. For instance, installing tidegates under the Parson's Slough railroad bridge would greatly reduce tidal volume in the Slough, and therefore likely diminish erosion rates in the system as a whole, but would decrease the value of upstream habitats for large animals such as the leopard sharks now abundant there. Such complex trade-offs will be weighed by the entire coordination team, and a action plan for hydrological management will be jointly formulated. The plan will reiterate the shared management goals reached initially with regard to the optimal percentage of freshwater marsh vs. saltwater marsh vs. eelgrass bed vs. mudflat vs. tidal creeks vs. open water habitats in the system, and will contain recommended measures by specific agencies and organizations for accomplishing and maintaining this desired balance.

Consistency with Mission and Goals:

This project is directly linked to the mission, as it will serve to "ensure comprehensive and coordinated management, conservation and enhancement of California's ocean and coastal resources." The project will meet the stated goals for the funding as follows:

Goal 1: Stewardship. This project will build coordinated stewardship of Elkhorn Slough. The resulting action plans will give managers clear direction regarding how to best conserve and manage key Slough resources.

Goal 2: Economic Sustainability. The project will encourage environmentally sound, sustainable, and economically beneficial activities by accommodating uses in ways that best protect the resources.
Goal 3: Research, Education, and Technology. The action plan will draw upon research, including technology such as hydrological modeling and GIS analyses, in order to solve resource issues, and will involve education and outreach components once completed.

Goal 4: Jurisdiction and Ownership. The plan will coordinate various state, federal, local, and private jurisdictions and owners to maximize California's interests in the Elkhorn Slough coastal watershed.

Timeline:

This project will require 3 years to complete. Time is needed to conduct research, coordinate with interested parties, meet with partners and the public, conduct decisionmaking "think tanks", generate maps and support materials, and draft/revise the action plan.

Year 1: Coordinator and fellow are hired and begin work. Coordinator identifies stakeholders and jurisdictions, initiates and facilitates discussions with the ESNERR Reserve Advisory Committee and staff, and develops the coordinated stewardship process. Fellow carries out research and information gathering. First meetings of stakeholders; development of shared vision of management goals for the Slough and dissemination of summary thereof.

Year 2: Continued general stewardship coordination involving all stakeholders; expert workshops conducted, consultants contracted, and action plan sections drafted in consultation with stakeholder committee.

Year 3: Continuation of Year 1 and 2 activities. Draft Action Plan completed and reviewed by stakeholder committee. Action Plan final.

Budget:

Some of the costs of this project will be born by the Elkhorn Slough National Estuarine Research Reserve with regular programmatic funding. This includes extensive time to be contributed by the Reserve's Manager, Restoration Coordinator, Research Coordinator, and Education Coordinator, as well as space and facilities for personnel involved with the project. However, success of the project depends vitally on additional funds, primarily for a coordinator, a fellow, and consultant time. The estimated costs for completing the project consist of:

Slough Stewardship Coordinator (55K/yr X 3 yrs)	$165,000
Tidal Wetland Hydrology Fellow (35K/yr X 3 yrs)	105,000
Consultants ($100/hr X 200 hours)	20,000
Computers, printers, software, supplies	10,000
Indirect costs (20% of the direct costs)	60,000
Total Requested	**$360,000**

The CIAP allocation from the California Resources Agency is $300,000 as of July 24, 2001. We respectfully request that this allocation be increased to $360,000 in order to accommodate the absolute minimum needs to complete this project. If these funds cannot be made available through the CIAP, the Reserve will attempt to find this funding elsewhere through state, federal, and private means.

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Department: California Resources Agency
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Title of project: Form Central Coast Wetlands Joint Venture:
Project location: Sacramento
Total cost: $75,000
Funding request: $75,000

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Project Summary:

The California Resources Agency proposes to contract with consultants over two years to create a Central Coast wetlands partnership. The Central Coast is currently the only region of the state that is not covered by some type of wetlands restoration, acquisition, and planning partnership.

Background:

The California Wetlands Conservation Policy (Policy) which was established by executive order on August 23, 1993 identifies three main elements for implementation.

1) Statewide policy initiatives including:
   25 a Statewide wetlands inventory
      1) support for wetland planning
      2) improved administration of existing regulatory programs
      3) strengthened landowner incentives to protect wetlands
      4) support for mitigation banking
      5) development and expansion of other wetlands programs
   6) integration of wetlands policy and planning with other environmental and land use processes

      1) Three geographically based regional strategies in which wetlands programs can be implemented, refined, and combined in unique ways to achieve the goals and objectives of the policy.

1) The Central Valley
2) San Francisco Bay Area, and
3) Southern California

      2) Creation of an interagency wetlands task force on wetlands to direct and coordinate administration and implementation of the policy.

In response to element 2, the Resources Agency in cooperation with the U.S. Environmental Protection Agency, the State Coastal Conservancy, and other state federal and agencies created the Southern California Wetlands Recovery Project (formerly known as the Southern California Wetlands Clearinghouse) in October 1997. In addition to the Wetlands Recovery Project, numerous other regional wetland planning efforts exist throughout the state. They include:

1) The Pacific Coast Joint Venture – Coastal Marin County onto British Columbia -,
2) the Central Valley Habitat Joint Venture – the California Central Valley -
3) the San Francisco Bay Joint Venture (SFBJV)– San Francisco Bay and coastal Bay Area counties -, and
4) the Intermountain West Joint Venture – Sierra and Cascade Mountains.

The only other region in California with significant wetlands not represented on the list above is the Central Coast; i.e., from Northern Santa Barbara County to Santa Cruz County. These significant wetlands include Pescadero Marsh, Elkhorn Slough, and Morro Bay, to name a few. Further, a Central Coast wetlands partnership would bridge areas of the Coast already covered by the Wetland Recovery Project and the SFBJV.

For the purposes of gauging public interest in establishing such a partnership, the Resources Agency and U.S. Environmental Protection Agency convened public workshops in Morro Bay in November 2000 and in Monterey in March 2001. Feedback received at these workshops indicated that there was indeed broad public support for forming a Central Coast wetlands partnership.

This CIAP proposal if funded would build upon these workshops by working with local stakeholders in exploring all options for establishing a Central Coast wetlands partnership; e.g., Joint Venture, Wetlands Recovery Project, etc. In addition, technical assistance has been offered by the adjacent Southern California Wetlands Recovery Project and the San Francisco Bay Joint Venture.

Consistency with Mission and Goals:

This proposal would be fully consistent with the mission established by the Resources Agency for the use of CIAP funds in California and would achieve the Agency's goals by: (1) promoting environmental stewardship through effective design and assessment of wetland restoration and acquisition projects along the Central Coast Region and (2) maximizing the application of coordinated regional wetlands planning along the Central Coast.

Budget and Cost Estimate:

The requested CIAP funding would support one part-time contract position for 1.5 years. In addition, U.S. Environmental Protection Agency, Region IX is pursuing a funding augmentation to this budget.

Project Schedule:

The proposed project will commence as soon as CIAP funding becomes available and will last 1.5 years. At the end of the 1.5-year period the project will be assessed by the Resources Agency, US EPA, and other interested parties for long-term viability and funding.

CALIFORNIA RESOURCES AGENCY
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PROJECT PROPOSAL FORM

Department:	**Department of Parks and Recreation, Oceano District**
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Title of project:	**Oceano Dunes Foredunes Restoration**
Project location:	**San Luis Obispo County - Oceano Dunes State Vehicular Recreation Area – Pismo State Beach**
Total cost:	**$200,000**
Funding request:	**$200,000**

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Project Summary:

This project proposes development and first phase implementation of a foredune habitat restoration plan within an approximate 2,400 ft. length of foredunes in Oceano Dunes State Vehicular Recreation Area – Pismo State Beach between Pier Avenue and Arroyo Grande Creek, Oceano, CA.

The project site is bordered on the north by stabilized foredunes adjacent to the Pier Avenue public restroom, on the east by the Pier Avenue public parking lot and residences along Strand Avenue, on the south by Arroyo Grande Creek, and on the west by the Pacific Ocean. The project involves the restoration of approximately 11 acres of foredune habitat, now primarily comprised of either barren sand or covered with exotic plant species such as European Beach Grass or Ice Plant.

Periodic sand removal activities undertaken over the past 20 – 30 years to protect residences along Strand Way from drifting sand dunes have significantly degraded the habitat. Approximately half the length of the project area is devoid of vegetation, and sand movement generated by onshore winds annually threatens damage to many of the residences. Exotic plant species introduced many years ago in efforts to stabilize the foredunes have degraded the quality of the habitat. The development and implementation of a foredune restoration plan will both result in the restoration and reestablishment of nearly one half mile of sensitive shoreline habitat, and, through the stabilizing effect of native vegetation, will afford the homeowners residences a measure of protection from drifting sands.

This project will provide funding for the development of a long-range management plan for this foredune area, the conduct of all necessary environmental reviews and approvals per CEQA and NEPA, the securing of permits from various regulatory agencies, and will provide funding for the initial planting and fenced protection of native plant species throughout the project area. The plan will include the provision for public pedestrian access from the neighboring community to the beach through the foredunes. The development of public access paths / boardwalks would be undertaken at a future date upon securing additional funding.

The project involves properties owned by the State of California, Department of Parks and Recreation and by the County of San Luis Obispo.

Consistency with Mission and Goals:

Goal 1 – Stewardship

This project directly improves coastal habitat through the establishment and restoration of native vegetation / wildlife habitat within an approximate 2,400 ft length of coastal foredunes. The project will meet the expressed desire of the California Coastal Commission and the San Luis Obispo County Board of Supervisors to establish a long term management plan for this site that both protects coastal resources and reduces the need for emergency permitting to nearby homeowners for the removal of drifted sands impacting their homes. Planning will involve input from the US Fish and Wildlife Service and the California Department of Fish and

Game relative to the possibilities this project provides for the establishment or protection of critical habitat and the enhancement of populations of the threatened Western Snowy Plover, the endangered California Least Tern, and several listed plant species, including the endangered La Graciosa Thistle.

Goal 2 – Economic Sustainability

The project will greatly reduce, and nearly eliminate the need for the issuance of sand removal permits to homeowners located adjacent to the foredunes. The stabilization of the foredunes through establishment of native plants, and a well considered and regulated provision in the foredune area management plan for the removal of sands impacting the neighboring homes, will decrease the need for environmentally disruptive heavy equipment operations for sand removal activities near the homes. The planning and provision for future establishment of pedestrian access ways through the foredunes will reduce resource maintenance costs over time by reducing the need for additional vegetation planting.

Goal 3 – Research, Education and Technology

The project provides the opportunity to establish protocols and methodologies that might be utilized elsewhere along California's central and southern coastline in the reestablishment or restoration of foredune ecosystems.

Cost Estimate and Budget:

Total - $200,000

All phases of this project will be accomplished under contract

Development of Management and Restoration Plan - $ 90,000

Coastal geomorphologist and engineering - $15,000
Environmental Analysis and permitting - $ 60, 000
Public Meeting Process - $ 10,000
Landscape Architecture - $ 5,000

Management and Restoration Plan Implementation - $ 95,600

Materials (seed, small tools, fencing) purchase – $ 59,700
Site Preparation (grading, sand stabilization, interim fencing) – $ 20,600
Labor – (project supervisor and laborers) - $ 15,300

Department of Parks and Recreation Project Coordination – $ 14,400

Funding Sources

This project will be funded entirely by the Coastal Impact Assistance Program. Future phases of the pedestrian boardwalk / coastal access component will be funded by the State of California or County of San Luis Obispo subject to obtaining additional alternative grant funding.

Timeline:

0 to 3 months
- Prepare project RFP
- Select contractor

3 to 6 months
- Hold public workshops,
- Consult with agencies
- Preliminary Dune Restoration plan

6 to 9 months
Final Dune Restoration Plan

9 to 12 months
Draft CEQA documentation

12 to 18 months
- Obtain necessary permits from local, state, and federal agencies
- Final CEQA documentation

18 to 21 months
- Prepare bid package
- Advertise
- Select/Award
- Contract

21 to 24 months
7) Construction
8) Work completed

CALIFORNIA RESOURCES AGENCY
COASTAL IMPACT ASSISTANCE PROGRAM
PROJECT PROPOSAL FORM

Department: Department of Parks and Recreation
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Title of project: Pescadero Marsh Habitat Restoration
Project location: Pescadero State Beach (Pescadero Marsh Natural Preserve)
Total cost: $150,000
Funding request: $150,000

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PROJECT SUMMARY:

The project would remove approximately 150 feet of levee on Pescadero Creek and begin to restore an approximately 13 acre fallow agricultural field, which was formerly a wetland, back to its natural condition. The Pescadero Marsh Natural Preserve is home to numerous plant and wildlife species, including many sensitive species such as the California Red-legged Frog, San Francisco Garter Snake, Steelhead Trout, and Townsend's Big-eared Bat. In addition to restoring wetland habitat to a coastal ecosystem, it would also allow Pescadero Creek to begin to once again have a functional floodplain thus enabling natural processes in the ecosystem to occur. Restoring the functional floodplain may also help reduce flooding concerns on adjacent private property. This project will serve as a model for additional levee removal projects in the watershed. Our goal is to restore wetland habitat and recreate a functional floodplain in conjunction with human habitation in the floodplain.

The funding requested from the Coastal Impact Assistance Program would begin the process of wetland habitat restoration along Pescadero Creek in the Pescadero Marsh Natural Preserve. The project entails removing the levee and either depositing the spoils off-site or placing the spoils in a manner to create upland habitat for sensitive terrestrial species, such as the San Francisco Garter Snake. We will remove non-native plants from the fallow field, and begin revegetation with appropriate species. Native plant materials from local genetic sources will be used. All work will be carefully monitored during construction to minimize any potential short-term impacts associated with restoration. The project includes a strong monitoring component, which is crucial to ensure the success of the restoration project and allow adaptive management. Extensive monitoring is required to weed non-native species from restoration areas and ensure the survival of newly planted material. Success of the project will be determined by the re-establishment of wetland habitat and a functional floodplain and the ability of the project to provide some flood relief for landowners inhabiting the floodplain by providing hydrologic conveyance of flood waters.

This wetland restoration project ties into regional conservation efforts that California State Parks and the Pescadero Marsh Natural Preserve are a part of. We are currently working with the Monterey Bay National Marine Sanctuary, which encompasses Pescadero Marsh, to develop monitoring protocols. California State Parks is also an active member of the newly-formed Central Coast Conservation Partnership which seeks to conserve biological diversity along the central coast of California. Within the Pescadero watershed, a Watershed Assessment is getting underway to look at sediment inputs and restoration opportunities for sensitive species; we serve on the Technical Advisory Committee for this project. Our restoration project is consistent with these watershed-level efforts. The Coastal Conservancy is supportive of this restoration project because they feel Pescadero Marsh is an important wetland resource on the central coast and they feel strongly about re-creating additional habitat in the ecosystem. They are interested in working with us on the details of this project.

CONSISTENCY WITH MISSION AND GOALS:

Restoring wetland habitat in this coastal ecosystem is an excellent opportunity for coastal resources stewardship. It is consistent with the management objectives of the

Pescadero Marsh Natural Preserve, which seek to restore the wetland to conditions that would have existed without historical human activities. This restoration project would allow this presently altered ecosystem to function in a more natural, self-maintaining manner.
The entire marsh ecosystem has been altered by previous land uses, namely construction of dikes, levees, and channels to allow farming, and State Parks has been working for the past two decades to re-create the functioning ecosystem once present. This project is one of the important next steps necessary to restore hydrologic and wetland ecosystem function to the marsh as a whole. Functional floodplain and wetland habitat are important ecosystem components for many marsh-dependent plant and animal species. This project will directly benefit several sensitive species. We hope this project will serve as a model for additional work in the watershed to restore the functional floodplain while providing some flood relief to nearby landowners.

BUDGET:

Due to the presence of multiple threatened and endangered species, some with competing needs, and the multiple agencies involved, the permitting process will be time intensive. This restoration project is contingent upon successful environmental review and permitting. The cost for levee removal may be less than budgeted if levee materials can be disposed of on-site in a manner that enhances habitat for endangered species rather than off-site.

Pre-construction environmental surveys and baseline monitoring	$8,000
Surveying, mapping, and hydrological modeling	$10,000
Plan design	$15,000
Environmental review and permitting	$15,000
Removal of 150 feet of levee adjacent to Pescadero Creek	$75,000
Non-native species removal and native species revegetation	$5,000
Project monitoring and adaptive management	$10,000
Project management and administration	$12,000
TOTAL PROJECT COST	**$150,000**

TIMELINE:

All restoration activities will be timed to minimize potential short-term and seasonal impacts to sensitive species. The exact timeline will be decided upon when it is determined when the funding will be available.

Months 1-4: surveying, mapping, and hydrological modeling; plan design; initiate permitting with agencies

Months 4-14: environmental review and permitting; pre-construction environmental surveys and baseline monitoring; non-native species removal

Month 14: levee removal

Months 14-18: native species revegetation and non-native species removal

Months 14-24: project monitoring and adaptive management

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Department:	**San Francisco Bay Conservation and Development Commission and the California Resources Agency**
Prepared by:	**Christopher Potter**
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Title of project:	**San Francisco Bay Wetland Recovery Program**
Project location:	**San Francisco Bay Region**
Total cost:	**$225,000**
Funding request:	**$125,000**

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Goal 4: Jurisdiction and Ownership. To maximize California's interests in coastal watersheds, State Tidelands, the Territorial Sea, and the Exclusive Economic Zone.

Project Summary:

The San Francisco Bay Conservation and Development Commission (BCDC) and the California Resources Agency request $125,000 in Coastal Impact Assistance Program (CIAP) funding to be used for activities relative to wetlands recovery in San Francisco Bay including: (1) consultant and professional services needed by BCDC to carry out its enforcement and permit responsibilities relative to wetlands and (2) consultant and professional services needed to participate in wetlands management partnerships (e.g., the Bay Area Wetlands Recovery Project and the San Francisco Bay Joint Venture) that address critical issues facing San Francisco Bay relative to wetlands.

Background:

As a follow-up to the San Francisco Bay Habitat Goals Project, a number of agencies have been engaged in the development of a San Francisco Bay Wetlands Recovery Project. Because wetland restoration science is still evolving, one elements of the Bay Wetlands Recovery Project would involve providing technical assistance to agencies, organizations and private interests which propose wetland restoration projects. Such assistance would ensure that wetland restoration projects have the highest chance of success and can benefit from the lessons learned from past restoration efforts. Building on the success BCDC has achieved by using its Design Review Board and Engineering Criteria Review Board, a panel of wetland restoration experts would be convened to review wetland restoration proposals and offer technical assistance to the project designers. The panelists would include staff from other agencies who would provide their assistance on a pro-bono basis, as well as professionals in the field of wetland restoration who would be compensated for their participation on the panel.

Consistency with Mission and Goals:

This proposal would be fully consistent with the mission established by the Resources Agency for the use of CIAP funds in California and would achieve the Agency's goals by: (1) promoting environmental stewardship through effective design and assessment of wetland restoration projects; (2) advancing economic sustainability by providing the analysis needed to support the approval of wetland projects that are consistent with the Commission's laws and policies; (3) providing financial resources to support more thorough research and analysis to provide the Commission, public and other organizations with the knowledge necessary to make informed decisions regarding wetlands restoration; (4) and maximizing the application of BCDC's management policies through the formulation of partnerships with other organization that share BCDC's policies objectives.

Budget and Cost Estimate:

The requested CIAP funding would support one staff position at BCDC and retain consultants with expertise in wetland restoration on a as needed basis. It is anticipated that consultants will be paid no more than $75.00/hour for their services.

An additional $100,000 has been committed for this project by U.S. Environmental Protection Agency (US EPA), Region IX. Total identified potential funding for this project is currently $225,000. Additional funding for this project will be sought as opportunities present themselves.

Project Schedule:

The proposed project will commence as soon as CIAP funding becomes available and will last 3 years. At the end of the 3-year period the project will be assessed by the Resources Agency, BCDC, US EPA, and other Wetlands Recovery Project members for long-term viability and funding.

CALIFORNIA RESOURCES AGENCY
COASTAL IMPACT ASSISTANCE PROGRAM
PROJECT PROPOSAL FORM

Department: Department of Fish and Game
Prepared by: Douglas Updike
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Title of project: Santa Cruz Island Ecosystem Restoration
Project location: Santa Cruz Island, (Santa Barbara Channel Islands)
Total cost: $500,000
Funding request: $500,000

MISSION

To ensure comprehensive and coordinated management, conservation and enhancement of California's ocean and coastal resources for their intrinsic value and for the benefit of current and future generations.

GOALS: Four goals have been established by the State of California to achieve this mission.

Goal 1: Stewardship. To assess, conserve, and manage California's ocean and coastal resources and the ecosystem that supports those resources.

Goal 2: Economic Sustainability. To encourage environmentally sound, sustainable, and economically beneficial ocean and coastal resource development activities.

Goal 3: Research, Education and Technology. To advance research, educational programs, and technology developments to meet future needs and uses of coastal and ocean resources.

Goal 4: Jurisdiction and Ownership. To maximize California's interests in coastal watersheds, State Tidelands, the Territorial Sea, and the Exclusive Economic Zone.

Project Summary:

This project would partner the California Department of Fish and Game, (CDFG), with The Nature Conservancy, (TNC), in ongoing efforts to restore the unique ecosystem of Santa Cruz Island in the Santa Barbara Channel Islands. These efforts are urgently needed to protect a large number of protected, endemic taxa now in dramatic decline. These include nine federally listed plant species, five of which are also state listed. One animal, the Island fox ***Urocyon littoralis,*** is officially listed by the State of California as "Threatened", but currently has no federal status. It is essentially on the brink of extinction.

The Work:
The Nature Conservancy and the National Park Service, (NPS), the two island landowners, are jointly pursuing integrated island-wide restoration. A DEIS, (Santa Cruz Island Primary Restoration Plan), was released in February and completed its public review period on April 24th, 2001. State Historic Preservation Office consultation is currently underway and full NEPA compliance is expected by winter. This plan includes the eradication of feral pigs, which pose the most significant remaining threat to the listed species. Funding for the hunting component is expected to come to the Channel Islands National Park under the Natural Resources Challenge in FY 2002. The Nature Conservancy has also already provided significant funding and is pursuing additional support through its own private fundraising efforts.

However, funding has not yet been secured for fence construction which must begin as the first step in plan implementation. The funding requested would be in the form of a grant to TNC to construct marine environment-resistant pig-proof fencing to begin to divide the island into six discrete units. This will allow implementation of the most reliable and cost-effective hunting program. Design and materials, (see last page), are field tested and proven in comparable and demanding environments. Fencing for the first unit must be begun in Spring 2002 for the work to go forward: Immediate implementation of these restoration actions is critical to recover the Island fox and to prevent the extinction of other listed organisms. Federal Line Item Construction money for fencing is expected to be included in the FY'03 budget to continue the work.

The Department's Role
TNC's work on Santa Cruz Island has had the active support of the California Department of Fish and Game through its Wildlife Programs Branch for more than ten years. This has included advice and assistance in addressing wild pig depredation of rare plant and archaeological sites, and input on the development of actions proposed in the restoration plan currently under public review. CDFG will conduct a supervised public hunt on TNC's property, under its Wild Pig Program, as a last opportunity for sport hunters before the restoration plan is implemented.

The State of California has therefore already been very constructively involved in the management of pigs on the island. This proposal would allow it to add its financial support to the efforts of the other two key partners—TNC and NPS—and thereby play a key role at a very critical time in the restoration effort. Through this funding, the State would participate more fully in the restoration of this unique coastal California ecosystem and the eventual recovery of state and federally listed species that exist nowhere else in the world.

Coastal Resources

Santa Cruz Island is the largest of the Santa Barbara Channel islands. The Nature Conservancy owns seventy-six percent, a total of 46,000 acres. All fencing will be constructed on TNC land. The National Park Service owns the remaining twenty-four percent of Santa Cruz, as well as several smaller islands in the vicinity. The islands are surrounded by a marine sanctuary, and share the Santa Barbara Channel with extensive off-shore oil and gas facilities. Currently there are seventeen platforms in the Channel.

Consistency with Mission and Goals:

Santa Cruz Island is 96 square miles and has 74 miles of coastline. It is strongly influenced by the marine environment and everything which happens on it in turn influences the marine. Extensive and dramatic rooting activity of nearly five thousand pigs causes erosion of soils and sedimentation of creeks, drainages and estuarine interface areas all around the island. This goes beyond non-point source pollution. Two years ago, a landslide in an eroded area dumped enough soil into the ocean to expand the island by almost an acre!

Santa Cruz Island's ecosystems support unique and vulnerable biological resources unparalleled elsewhere on the mainland. With over fifty endemic taxa, they are a part of the legacy of every Californian. Boaters who regularly visit the dozens of coves and anchorages and hike and picnic on TNC's property enjoy the beautiful Santa Cruz Island silver lotus (State: Threatened) and dozens of other rare plants. Last year over a hundred thousand people visited the National Park Service's holdings on the island's east end. In past years visitors all over the island have regularly enjoyed seeing island foxes which are playful, day-active and unafraid. Due to predation by golden eagles attracted to the island by feral pigs, this is no longer the case. On two smaller islands, local subspecies of the island fox have been reduced by more than 90% and now survive only in captive breeding facilities.

Eradicating pigs is the key critical restoration action for the protection, recovery and future effective conservation of Santa Cruz Island ecosystems and resources. Without it, nine listed plants will continue to decline, and island foxes, state listed as Threatened, may well become extinct. The Santa Cruz Island Archeological District, listed on the National Register, will continue to be degraded, with burials unearthed and human bones scattered by pigs.

This project supports the Coastal Impact Assistance Program's mission specifically in:

Goal 1: Stewardship, in that it will serve to conserve unique coastal resources and the ecosystems which support them. Specifically it will serve to recover State-listed animals and plants, including the unique island fox.

Goal 2: Economic Sustainability, in that Santa Cruz and the other Channel Islands are a world-class natural area which already attract large numbers of visitors, despite the need to travel by boat to get there. A healthy island supports the quality of life for the more than one million people who live within sight of it on the mainland. It is a primary destination for most of the private boaters in Santa Barbara and Ventura Counties who support harbors, chandleries and

other business ventures. Commercial tourism is well established and likely to continue to grow with the area's increasing population.

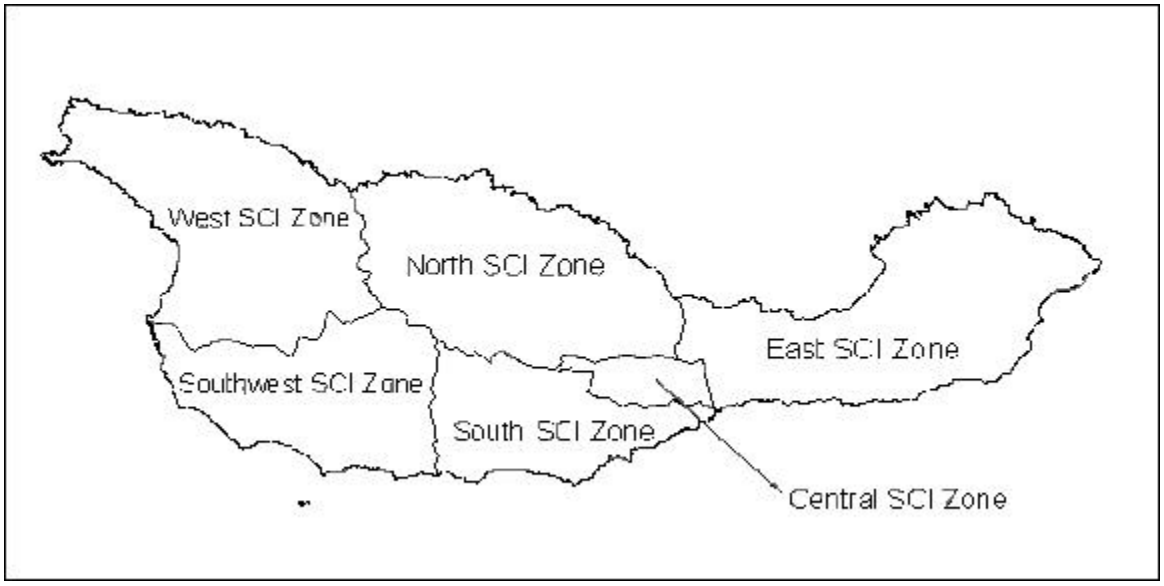
Goal 3: Research, Education and Technology, in that Santa Cruz Island is a part of the University of California Natural Reserves System which maintains a station on TNC property. The University will be an integral part of the island restoration, particularly in monitoring and documenting ecological impacts of the restoration effort.

Goal 4: Jurisdiction and Ownership, in that the Nature Conservancy's property is a private in-holding in the Channel Islands National Park. Its 46,000 acres are under the jurisdiction of the State of California. In addition, the rationale for the federal appropriation of these Coastal Impact Assistance funds was that states do not currently share in the revenues from off shore oil production in adjacent federal waters. This project is very consistent with that underlying congressional rationale in that the Minerals Management Service lists seventeen oil and gas platforms in the Santa Barbara Channel. That is over seventy percent of the platforms off of California. The remaining units consist of four platforms each in the Santa Maria Basin and Long Beach areas.

<u>This project also supports direction of the legislation: (from Discussion Draft January 23, 2001)</u>

III.3. ***Coordination with other Federal Resources and Programs:***
"For example, a state or local government could use funds to expand or improve an existing restoration project, acquire habitat areas needed to protect endangered species, or develop and implement regional restoration plans…"
This work is an opportunity for the State to contribute a pivotal piece to a restoration effort that already has significant federal (NPS) and private (TNC) engagement.

IV. 1. (H) ***"Identification, prevention and control of invasive exotic and harmful non-indigenous species"***
Wild pigs on Santa Cruz Island are descended from domestic swine abandoned there in the 1850s. In this isolated environment, rich in endemic species, they are causing direct harm. In addition, they are spreading invasive weeds, including fennel, which now covers 10% of the island, to the exclusion of native species including state and federally listed plants.



Fencing for Santa Cruz Island Restoration Implementation:

The fencing proposed was developed in Hawaii and has been field tested there and on Catalina Island. It has been demonstrated to hold up to both marine influences and pigs with a functional life of at least ten years. Based on the specialized materials, demanding topography and especially the risk to sensitive resources, we plan to contract with South West Fence and Supply Company. This firm has years of experience in exactly this kind of work under comparable conditions on Catalina Island. Details are provided below:

Materials:

Material consists of triple galvanized steel, (both posts and wire). Posts extend 39 inches above the ground, and wire configuration is as "hog wire": That is that it has the wires farther apart on the top and get progressively closer together as they approach the bottom. This keeps even small piglets from getting through, but is still permeable to island foxes and spotted skunks which climb easily. A special barbed wire, (4 barbs every 2 inches as opposed to 2 barbs every 6 inches on normal wire), is strung along the bottom of the fence to prevent pigs from rooting under and then pushing up the wire in order to get through. In very rugged areas, such as exposed bedrock on ridge tops, instead of roll-wire, pre-welded panels are brought in and cut with bolt-cutters to fit the ground profile on site.

Implementation:

Zones contain an average of 12,000 acres, a size which is proving practical to effectively hunt-out in one year in comparable work currently underway on Catalina Island. Zones will be fenced in a clockwise sequence, starting with the South SCI zone, where vegetation recovery since sheep removal threatens to close in, making it inaccessible to hunters. The whole project contains a total of approximately 45 miles of fencing. The cost per mile is estimated to be $52,000, based on experience in Hawaii and on Catalina Island. Total fencing cost is over $2 million.

Installation will be preceded by fence route site survey. Separate contracts will be let for archaeological resources and for sensitive plant species. These will be used to fine-tune the fence route and identify areas for special care during implementation.

Fencing the entire South SCI Zone, the first unit, will be the most costly, at $ 728,000 for the construction contract alone, and $1,000,000 in total costs. Subsequent units will be adjacent and share existing fence lines and so will be less costly. It will be necessary to fence at least one unit per year.

Cost Estimate:

Salaries and benefits:	
Salaries (TNC staff support at one fifth time)	$ 8,055
Benefits @ 37%	2,980
Total salaries and benefits	**11,035**
Contract fees:	
Fencing contract, approx. 7 miles, materials & labor	364,000
Total contract costs	**364,000**
Transport and travel:	
Boat and landing craft transport – materials/equipment	12,000
Helicopter transport of materials on island	18,000
Staff travel costs (flights to island, meals & lodging)	4,800
Total transport and travel costs	**34,800**
Direct cost subtotal	409,835
Indirect Cost Rate per NICRA* (22%)	90,165
Total cost	$ **500,000**

* NIRCA – Negotiated Indirect Cost Rate Agreement

Timeline:

* indicates action proposed for CIAP funding

Timing (calendar year)	Actions
Summer 2001	· Ground truth and GPS fence-line route for establishment of surveys* · Initiate contracting process with archeologist for survey of fence-lines for Chumash sites and other cultural resources
Fall 2001	· Complete survey of fence-lines by archeologist · Adjust fence-lines as necessary · Initiate contracting process with fencing contractor*
Winter 2001-2002	· Complete contract for fence building* · Calculate materials needs and do logistics planning* · Begin renovation of infrastructure to accommodate fencing project (housing, communications, etc) · Contract for rare, sensitive, and endangered plant surveys along fence-lines
Spring 2002	· Complete fence-line survey for plants · Adjust fence-lines as necessary and finalize route with contractor* · Transport materials, vehicles, and equipment to the island by boat and landing craft for staging* · Complete infrastructure renovation to accommodate fencing crew
Summer 2002	· Helicopter materials to remote depot locations along fence lines* · Begin installation of fence for South SCI Zone*
Fall 2002	· Complete installation of fence for South SCI Zone
Winter 2002-2008	· Conduct regular monitoring of fences for breaks and weather damage; repair as necessary

General Budget Summary and Sources:

The Santa Cruz Island Primary Restoration Plan is the product of a multi-year collaboration between TNC and NPS, with significant input from CDFG. Implementation of the plan will begin with construction of fencing for the first of six hunting units. This would be funded under

CIAP. Funding for the remainder of the work, which will take place over seven years, is expected to come from a variety of sources. They are listed here and further described below.

(Note that Channel Islands National Park's enabling legislation specifically permits the expenditure of federal funds on TNC's conservation lands on Santa Cruz Island for resources management purposes.)

Funding Program & Source	Timing	Use	Amount
Coastal Impact Assistance Program	Fall 2001	Launch implementation by fencing largest hunting unit	$ 500,000
NPS End of year Money	Apply for allocation in Summer 2002	Complete fencing of first unit	$ 500,000
Natural Resources Challenge (Federal budget)	Federal Fiscal Year 2002 on, $498,000 for seven years	Implement hunting component of plan	$ 3.5 million
Line Item Construction Funds (Federal budget)	Federal Fiscal Year 2003 on, "no-year" funding	Complete fencing of hunting zones	$ 2.1 million (up to)
Nature Conservancy (private fundraising)	Ongoing participation in eagle removal, fox studies, facilitation	Plan implementation	$ 1.0 million
Fire Program Funds (National Park Service)	Fall 2002 (appx)	Prescribed fire as part of fennel control work	$ 80,000
Natural Resources Preservation Prog. (NPS)	Fall 2002-03	Herbicide component of fennel control	$ 450,000
	Over 7 Years: Restoration Plan	Implementation Total Cost	8.13 million

Natural Resources Challenge:

A federal program designed to provide funding to National Parks specifically for control and eradication of non-native species. This allocation will begin in federal fiscal year 2002 and continue throughout the life of the project. Channel Islands National Park is one of only twenty parks nationally to be included for funding through this program in fiscal year 2002. At $498,000 per year it is the largest allocation made to any park under this program. It will be used to fund the hunting component of pig eradication, which includes infrastructure upgrades, communications equipment, contracted hunters, and contract administration.

Line-Item Construction Funding:
A National Park Service (NPS) program designed to fund maintenance and construction projects within NPS. This program is reserved for projects that are estimated to cost more than $500,000, and so requires projects to be of a significant scale. These funds will be used to conduct surveys for fence construction compliance, complete the construction of fenced zones and provide maintenance and monitoring support for the fences for the life of the project and possibly for partial removal of fences upon completion of the project.

The Nature Conservancy Project Funds:
TNC has worked very hard in initiating and supporting this project. TNC staffed the federal compliance process for this project, has provided planning and logistics consultation, biological resource expertise, weed control techniques, and on-island support. TNC will continue to focus its efforts on this work for the duration of the project.

National Park Service Fire Program:
Designed as a program for fuels management within national parks, the NPS fire program will contribute critical funds and expertise for the control of the non-native weed, fennel, an essential part of the restoration program. Fire program funds will be used to execute a prescribed fire over 1500 acres of fennel, which is required as the first step of control needed to make this area accessible for hunting pigs, actions included in the Restoration Plan.

Natural Resources Preservation Program:
A second funding source for fennel control, this program would provide key dollars for the low-dose application of a selective herbicide to dense fennel areas following prescribed fire treatment. These funds will be used for the purchase and aerial application of a herbicide containing the active ingredient triclopyr. This action is also included in the Restoration Plan.

Other Contributors:
In addition to hard dollars being used to implement the restoration work on Santa Cruz Island, considerable time and energy has been committed and will continue to be applied to the project by a broad array of experts. U.S. Fish and Wildlife Service personnel have consulted on pig impacts to the nine federally-listed threatened and endangered plant species. California Department of Fish and Game staff assisted with methods development and logistics consultation. University of California and California State University researchers have contributed extensive expertise on the unique resources and ecosystem processes on Santa Cruz Island.

CALIFORNIA RESOURCES AGENCY
COASTAL IMPACT ASSISTANCE PROGRAM
PROJECT PROPOSAL FORM

Department: State Coastal Conservancy
Prepared by: Steve Horn, Deputy Executive Officer
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Title of project: Southern California Wetlands Recovery Project Science Advisory Project
Project location: Santa Barbara County to the International Border
Total cost: $249,000
Funding request: $200,000

MISSION

To ensure comprehensive and coordinated management, conservation and enhancement of California's ocean and coastal resources for their intrinsic value and for the benefit of current and future generations.

GOALS: Four goals have been established by the State of California to achieve this mission.

Goal 1: Stewardship. To assess, conserve, and manage California's ocean and coastal resources and the ecosystem that supports those resources.

Goal 2: Economic Sustainability. To encourage environmentally sound, sustainable, and economically beneficial ocean and coastal resource development activities.

Goal 3: Research, Education and Technology. To advance research, educational programs, and technology developments to meet future needs and uses of coastal and ocean resources.

Goal 4: Jurisdiction and Ownership. To maximize California's interests in coastal watersheds, State Tidelands, the Territorial Sea, and the Exclusive Economic Zone.

Project Summary:

Synopsis

The Coastal Conservancy, in conjunction with the Science Advisory Panel of the Southern California Wetlands Recovery Project, proposes to do the following:

- Address critical issues that could constrain or enhance wetlands restoration efforts;
- Develop a more sophisticated planning context for setting Wetlands Recovery Project priorities;
- Improve wetland restoration techniques; and
- Determine the most telling and cost-effective evaluation methods for wetlands projects.

Context

For the past four years, seventeen state and federal agencies have worked together under a cooperative agreement as the Southern California Wetlands Recovery Project (SCWRP) to pursue restoration and long-term protection of southern California's coastal wetlands and the watersheds that affect them. The Coastal Conservancy serves as staff to SCWRP. A Science Advisory Panel has provided guidance to the agencies on criteria for setting project priorities. Other important and active components of SCWRP include citizen taskforces in each of the five south coast counties and a public advisory committee composed of local elected officials and representatives from the business community, environmental organizations, and others. SCWRP has already established an excellent track record for accomplishing property acquisitions, preparing restoration plans, and constructing wetland improvements.

Last year, SCWRPS's Board of Governors, led by Secretary for Resources Mary Nichols, took steps to encourage and facilitate increased participation of the science advisors, particularly in advising the Board on the scientific aspects of issues affecting wetland restoration feasibility, assisting with preparation of a regional plan, and in promoting research to fill significant gaps in knowledge of wetland ecology. To these ends, the Board endorsed the use of SCWRP funds to engage a qualified _-time aide to the science advisors, approved the selection of Dr. Stephen Weisberg as chair of the advisors, and approved a one-year work program that included assistance with the regional plan and an effort to stimulate research on public health issues affecting wetland restoration. Funds appropriated to the Coastal Conservancy for SCWRP were used to provide a grant to the Southern California Coastal Water Research Project, which is directed by Dr. Weisberg, to engage the _-time assistant for one year. Funding has not yet been available to address the public health issues.

Need for Proposed Project

The feasibility of continuing to restore southern California's coastal wetlands, the effectiveness of restoration measures, and the prudent deployment of staff and funding resources all depend upon obtaining timely and sound advice from wetland scientists. Some of the issues affecting restoration feasibility are unanswered questions about possible contribution of pathogens to beaches, threats of rampant colonization by non-native species, and the relationship between certain types of wetlands and water treatment. The first issue in particular raises questions

about public health and safety and also presents political and legal obstacles to restoring tidal action in coastal wetlands. SCWRP must engage the scientific community to design and carry out pertinent studies, help interpret the findings, and convey the findings to agencies and the public.

Certain habitat benefits of coastal wetland restoration—such as introduction of fish with the return of tidal action--are relatively easy to determine. Less easily detected benefits and adverse impacts—such as to important insects or nutrient distribution—are less clearly understood, but may also be critical for effective wetland restoration. In order to ensure that restoration funds are well-spent and that habitat is indeed effectively restored, more scientifically-sound work needs to be done to formulate cost-effective monitoring programs and restoration techniques.

Finally, the participation of the science advisors is needed in refining a SCWRP regional plan, particularly in helping identify critical stressors and restoration measures in watersheds, where the geographic scope of publicly-funded projects cannot be comprehensive and must be strategically designed.

In each of these matters affecting restoration of southern California wetlands, the science advisors to SCWRP are needed to both advise the agencies and promote pertinent, well-crafted studies by other scientists. The funds requested in this proposal would be employed to serve these needs by ensuring that a qualified part-time assistant remains available to coordinate and report on the work of the science advisors and by providing funds to support selected studies.

Consistency with Mission and Goals:

The proposed project would contribute substantially to the assessment, protection, and restoration of coastal wetlands and the watersheds that affect them by enabling the seventeen SCWRP agencies to work together to establish and implement restoration priorities that are clearly based upon sound scientific principles (Goal #1). This effort would also have a clear educational and research benefit because it would yield advances in wetland science, translation of those advances into improvements in practical wetland restoration measures, and dissemination of the new information among the SCWRP taskforces and public advisory committee and the general public (Goal #3). This coordinated, public, science-based approach to resource decision-making will provide the best assurance that the state's interest in the coastal zone will be maximized (Goal #4).

Project Budget and Funding Sources:

Summary of Budget

Staff assistance to Science Advisory Panel (part-time for 24 mos.)	59,000
Research and analysis	175,000
Incidental costs	15,000
Total Project Cost	$249,000

Funding Sources

Coastal Conservancy (SCWRP)	$ 49,000
Proposed CIAP Grant	200,000
	$249,000

Project Implementation Timetable:

Staff assistance to Science Advisory Panel	24 months
Research and analysis	18 months
Total implementation*	24 months

*Budget elements are for work to be undertaken concurrently